

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

ITEM NOS. 14 and 15

**TENTATIVE WASTE DISCHARGE REQUIREMENTS AND CEASE AND DESIST ORDER
FOR CALIFORNIA DEPARTMENT OF PARKS AND RECREATION,
CRYSTAL COVE STATE PARK, EL MORRO TRAILER PARK, ORANGE COUNTY**

RESPONSES TO COMMENTS FROM INTERESTED PARTIES

Comment #	Comment	Staff Response
<i>Comments from El Morro Community Association as contained in cover letter dated October 16, 2003</i>		
1	From a procedural standpoint, we also find these Orders curious. Clearly, the RWD does not comport with the requirements outlined in the SDRWQCB staffs Order to DPR dated April 10, 2001 and attached hereto as Exhibit C. Neither does it appear that the reports or the Orders comport with SDRWQCB Resolution 79-44 attached hereto as Exhibit D. Finally, both the RWD and the Orders appear at significant variance with recent guidance provided this office concerning the issuance of WDRs for community septic systems. See Exhibit E attached hereto.	<p>The Regional Board concurs that the Report of Waste Discharge (RWD) does not satisfy all of the requirements outlined in Regional Board correspondence dated April 10, 2001 requesting additional information on the waste discharge to complete the RWD. However, as stated in Finding No. 1 of tentative Order No. R9-2003-228, the Regional Board determined that sufficient information had been submitted as part of the RWD to prepare tentative WDRs. Additional information regarding the waste discharge and its impacts, if any, to waters of the state will be obtained through implementation of the monitoring reporting program that is part of the WDRs.</p> <p>Resolution No. 79-44 has been superseded by the policy contained in the Basin Plan (see p. 4-25 of the Basin Plan). The tentative waste discharge requirements and Cease and Desist Order (CDO) are established to ensure that the goals of the Basin Plan are implemented.</p>

Comment #	Comment	Staff Response
		<p>The recent guidance for community septic systems referred to by the commenter is for a proposed new facility and is appropriate for that proposed facility. The April 10, 2001 Regional Board correspondence requesting a Report of Waste Discharge for EMTP provided guidance appropriate for the existing discharge at EMTP.</p>
2	<p>EMCA believes that the uniqueness of these Orders may arise from certain representations made to SDRWQCB staff by representatives of DPR. Specifically, it appears that DPR represented to SDRWQCB's staff that El Morro Village will soon be demolished and replaced by an itinerant trailer camp next to an elementary school, and that the trailer camp will be serviced through a sanitary sewer line currently under construction by DPR. See Exhibit F. Thus, SDRWQCB staff may be under the misconception that the WDR would never be implemented and therefore, the RWD should not be given the same scrutiny as would apply to other applications. Nothing could be further from the truth.</p> <p>The Fact is that many Orange County elected officials and parents groups vigorously oppose DPR's proposal. See Exhibit G. . . . Given all of these factors, it appears likely that El Morro Village will continue to operate in its current form for the foreseeable future.</p>	<p>Tentative Order Nos. R9-2003-0228 and R9-2003-0285 were written to protect the water quality and beneficial uses of the waters of the state that may be impacted by the existing subsurface discharge from EMTP.</p> <p>The tentative orders were written for the existing subsurface discharge and the need to protect groundwaters and surface waters in the vicinity of the discharge, recognizing DPR's future plans for the EMTP site which are not certain at this time. Considerable attention was given to the large amount of information provided in the RWD in drafting the tentative orders in order to understand the impacts of the EMTP discharge on the waters of the state now and in the future.</p> <p>If the DPR plans are delayed or not implemented, the tentative WDRs and CDO, if adopted, will continue to ensure protection of water quality and the beneficial uses of waters of the State. Once adopted, staff is obligated to implement and enforce the orders as with any other orders issued by the Regional Board.</p>

Comment #	Comment	Staff Response
<i>Comments from El Morro Community Association as contained in report entitled "Exhibits to October 16, 2003 letter to Brian Kelley San Diego Regional water Quality Control Board"</i>		
3	<p>(EMCA report, p 12, lines 7-20)</p> <p>Existing water quality samples do not provide evidence that the wastewater disposal fields cause impacts from bacteria, nitrate, or nitrogen compounds to the water of El Morro Creek. MBAS concentrations are below water quality objectives. Based on the lithology of the San Juan Hydrologic Unit and specific soil analyses (Psomas, 2002) of the EL Morro Canyon, the source of boron, iron, manganese, chloride and sulfate in the surface water of El Morro Creek is lithologic, originating from the specific soil types found by the creek. While these metals and ions are present in concentrations that exceed Basin Plan water quality objectives, their source is naturally occurring and not related to the EMTP disposal fields. The "Report of Sampling and Analysis for the Crystal Cove State Park El Morro Mobile Home Park Facility", September 2002 (Psomas) offers the same conclusions. "Because of the reducing chemical environment other ions available in the sediments are likely being dissolved into the groundwater...the presence of the other listed parameters are likely the result of naturally occurring concentrations of these compounds."</p>	<p>The Regional Board agrees that the available data contained in the Report of Waste Discharge (RWD) indicates that Moro Canyon Creek is not adversely impacted by the EMTP discharge. While nitrogen compound, indicator bacteria, and MBAS concentrations in the creek samples appear to be higher downstream of the disposal fields than in upstream samples, the El Morro Trailer Park (EMTP) discharge has not been identified as the sole possible source for these constituents in the creek. Additionally, the soils and geologic formations of the Moro Canyon watershed might be sources of boron, iron, manganese, chloride and sulfate observed in the creek.</p> <p>Finding No. 20 of tentative Order No. R9-2003-228 states that analytical results from water samples collected from the creek indicate little or no impact on the water quality of the creek due to wastewater discharged from EMTP. For this reason, the tentative Order is written in the form of waste discharge requirements for a discharge of waste to land.</p> <p>The Monitoring and Reporting Program of the tentative Order establishes a more intensive surface water monitoring requirement to verify that the conclusions based on information contained in the RWD remain valid. While the water quality in the creek is likely not significantly impacted by the EMTP discharge, Finding No. 19 of the tentative Order recognizes that the discharge is impacting the creek by establishing a perennial surface flow in what would otherwise be an ephemeral stream.</p>

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4	<p>(EMCA report, p 13, lines 1-20)</p> <p>The obvious conclusion from both the County of Orange beach monitoring data and the high beach quality rating given by Heal the Bay is that there is no impact to El Morro Beach from wastewater originating from either the East or West EMTP wastewater systems.</p>	<p>The Regional Board concurs with the comment as it pertains to impact to bacterial indicator levels in ocean waters resulting from the discharge from EMTP.</p>
5	<p>(EMCA report, p 14, lines 2-6)</p> <p>Percolation tests were performed in February 1977 and October 1985 for the purpose of sizing seepage pits. Both test records reported absence of groundwater at depths of 24 and 29 feet (See exhibit8). Percolation rates were high -- 0.93 to 6.76 minutes per inch (mpi) indicating suitable soils for seepage pits.</p>	<p>In analyzing the Report of Waste Discharge and drafting the tentative Orders, the Regional Board relied on the more recent hydrogeologic data provided in the RWD with boring log documentation. While percolation test records from 1977 and 1985 were provided to the Regional Board by DPR in "Crystal Cove State Park Moro Creek Wastewater System Report" dated May 2001, the actual locations of the percolation test holes and the boring logs for the test holes were not available to the Regional Board, and thus could not be verified.</p>
6	<p>(EMCA report, p 16, lines 7-16)</p> <p>Psomas collected water samples from eight monitoring wells in the eastern disposal fields area and tested the water for nitrate and other nitrogen compounds. Each well revealed nitrogen species that were subsequently mapped to show a single continuous plume of nitrogen compounds surrounding both disposal fields including the area lying between fields. . . . This suggests that all of the wells lie within a plume of wastewater effluent. This is not unexpected, given that the purpose of seepage pits is to allow the effluent to seep into the ground where the soil continues to treat the effluent. This is the common intention of all onsite wastewater systems that dispose of effluent into the ground. In other words, the seepage pits are working as intended. It is entirely possible that all of the water within the nitrogen plume is wastewater effluent.</p>	<p>The Regional Board does not agree with the comment. Monitoring Well P3, located upgradient of the disposal fields, indicated groundwater with total nitrogen and nitrate levels significantly lower than in water samples from downgradient monitoring wells. The RWD indicated that Monitoring Well P3 is outside of the nitrogen plume.</p> <p>A properly operating and maintained seepage pit disposal system requires a minimum 4 ft separation between the bottom of the seepage pits and the water table. The RWD reported that in the eastern EMTP disposal areas, the seepage pits have 2 ft or less separation. Thus, the EMTP seepage pits are not operating properly to achieve adequate treatment of wastewater.</p>

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7	<p>(EMCA report, p 17, lines 16-21)</p> <p>The ground water quality sampling characterized the effluent plume in the vicinity of the disposal fields. Without field measurements and water quality tests from wells located outside the effluent plume, it is not possible to measure the effect of the disposal fields on naturally-occurring groundwater. Available records do not provide data that substantiate the existence of groundwater in the vicinity of the EMTP disposal fields.</p>	<p>The Regional Board does not agree with the comment. The available evidence indicate that groundwater occurs naturally in the Moro Canyon watershed upgradient of the disposal field and nitrogen plume.</p> <ul style="list-style-type: none"> • The boring log for soil boring station SB1 provided in the RWD, located approximately 70 ft upgradient of the disposal field and nitrogen plume, indicates that groundwater was encountered at 23.5 ft below the ground surface. • Figure 10 of the Report of Sampling and Analysis indicates the groundwater elevations upgradient of the disposal areas, as determined by a registered geologist who assisted in preparation of the RWD. • Surface water monitoring locations EB1 and EB2 which are located 1 mile and 2 miles upgradient of the disposal areas, respectively, had observable flow during the summer of 2002 even after one of the driest recorded water years for the area, and this suggests a subsurface source of water. • In 2003, the Santa Ana Regional Board also conducted surface water monitoring in Moro Canyon Creek upgradient of the disposal fields. Moro Canyon Creek was observed as an intermittent stream that weaves in and out of the ground, indicating a perennial subsurface water source for the creek (a spring) near the top of the watershed.

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8	<p>(EMCA report, p19, lines 2-5)</p> <p>Basin Plan water quality objectives for groundwater specifically target nitrate only, and thus, only this form of inorganic nitrogen is of concern when examining the potential for groundwater impacts from the disposal fields.</p>	<p>Nitrate is one of the forms that nitrogen compounds can take depending on the availability of oxygen and the presence of nitrifying and denitrifying bacteria. The US EPA Office of Ground Water and Drinking Water regularly cites septic tanks as a source of nitrates because the ammonia and organic nitrogen in septic tank effluent is often readily converted to nitrates in the subsurface environment. Groundwater data provided in the RWD indicates that total nitrogen is mostly in the form of nitrate in a majority of the monitoring wells downgradient of the disposal fields.</p> <p>The Regional Board maintains that in order to protect groundwater quality, all sources of nitrates must be considered. It would be negligent for the Regional Board to continue to allow the discharge of septic tank effluent containing high levels of nitrogen that has the potential to be converted to nitrates.</p>
9	<p>(EMCA report, p 19, lines 11-14)</p> <p>The Basin Plan requires that groundwater contains a level of nitrate as nitrogen, no higher than 10 mg/l for the San Joaquin Hills HSA. Nitrate was not detected in any of the groundwater samples at a level higher than 10 mg/L except in well P8, which had 10 mg/L NO₃-N.</p>	<p>The numerical water quality objective for groundwater in the San Joaquin Hills HSA is given as 10 mg/L in Table 3-3 of the Basin Plan. The narrative description of the nitrate water quality objective on page 3-10 of the Basin Plan states that "Ground waters shall not contain nitrate (as NO₃) in concentrations in excess of the numerical objectives described in Table 3-3." Thus the nitrate water quality objective for the groundwater in the San Joaquin Hills HSA is 10 mg/L as NO₃ which is equivalent to 2.3 mg/L as N. The Basin Plan objective is more restrictive than the nitrate drinking water standard of 10 mg/L as N.</p>

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10	<p>(EMCA report, p 20, lines 5-12)</p> <p>The levels of TDS, minerals and sulfate found in groundwater samples taken within the vicinity of the wastewater disposal fields are consistent for water influenced by the natural geochemistry of El Morro Canyon and would not be considered impacted by the wastewater disposal fields. Nitrate levels in all the groundwater samples were within the limits set by the Basin Plan for groundwater designated as MUN, and only one sample was suspected to have levels of MBAS that exceeded Basin Plan objectives. Thus, there is no impact to the groundwater associated with the wastewater originating from either the East or West EMTP wastewater systems.</p>	<p>The Regional Board agrees with the comment with regards to "TDS, minerals and sulfate" and MBAS based on information contained in the RWD. The Regional Board does not agree with comments regarding nitrate because the commenter misinterpreted the Basin Plan water quality objective for nitrates in the groundwater of the San Joaquin Hills HSA. The Regional Board maintains that groundwater data provided in the RWD indicated that groundwater water quality objectives are exceeded in the vicinity of the EMTP disposal areas. The Regional Board does not agree with the general conclusion of the comment that there is no impact to the groundwater associated with the wastewater discharge from EMTP.</p>
11	<p>(EMCA report, p 21, lines 9-14)</p> <p>Insufficient information was presented to the SDRWQCB staff for adequate assessment of potential water quality impacts from effluent disposal. Information submitted by the CDPR does not provide sufficient evidence that groundwater is present nor does it sufficiently address the influence of local lithology on metals and ions in subsurface waters. The information lacks discussion of the potential for natural attenuation of total nitrogen and nitrates found in the wastewater.</p>	<p>As discussed in responses to comments above, sufficient evidence was contained in the RWD or was available to the Regional Board to establish the presence of groundwater in the Moro Canyon watershed.</p> <p>Section 8.3 of the Report of Sampling and Analysis of the RWD adequately addressed the possible role of the subsurface environment in determining the concentrations of metals, chloride and other ions in the groundwater at EMTP.</p> <p>Section 8.3 of the Report of Sampling and Analysis of the RWD also addressed natural attenuation of nitrogen compounds in the subsurface. Additional information dated July 10, 2003 from consultants for CDPR further discussed the natural attenuation of nitrogen compounds in the subsurface.</p>

Comment #	Comment	Staff Response
12	<p>(EMCA report, p 21, lines 15-22 and p 22 lines 1-4)</p> <p>CDO Finding 2 states that typical septic tank effluent contains total nitrogen of 40-50 mg/L as N and assumes that this textbook-reported nitrogen concentration is also typical of the EMTP wastewater. Actual wastewater quality testing by Psomas showed that both the BOD and TSS of this wastewater were below the average textbook reported concentrations for BOD and TSS, with the BOD reported as an average of 138 mg/L and TSS reported as an average of 24 mg/L (Psomas 2002, pg 14). Thus, it is probable that the total nitrogen and nitrate contained in the EMTP septic tank effluent is also lower than textbook reported concentrations. The EMTP septic effluent needs to be properly evaluated for its actual average concentration of nitrate before conclusions are made that the effluent will exceed waste discharge limitations for nitrate. The EMTP wastewater effluent should be tested for nitrate and other nitrogen compounds.</p>	<p>The comment refers to CDO Finding 3 as contained in the CDO draft sent out for public comments on October 3, 2003.</p> <p>CDO Finding 3 states that wastewater from EMTP discharged to the subsurface disposal system is expected to contain an average range of total nitrogen concentrations of 40-50 mg/L as N based on effluent quality data and typical septic tank effluent characteristics. The effluent quality data referred to in this Finding was obtained from "Engineering Assessment and Feasibility Study, Wastewater Collection and Treatment, El Morro Community Association, El Morro, Ca" received by the Regional Board on July 9, 2001 from representatives of El Morro Village, Inc.</p> <p>The report contained EMTP septic tank effluent data which indicated average total Kjeldahl nitrogen concentrations of 40-53.35 mg/L as N. Total Kjeldahl nitrogen is a measure of the nitrogen content in the form of ammonia and organic nitrogen. In the anoxic environment of the septic tank, nitrogen compounds would almost entirely be in the form of Kjeldahl nitrogen. If the septic tank effluent contained measurable nitrogen in nitrate form, then total nitrogen levels would be even higher than the Kjeldahl nitrogen levels because Kjeldahl nitrogen is a subset of total nitrogen</p>

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13	<p>(EMCA report, p 23, lines 9-21)</p> <p>The language in WDR Finding 18 is confusing and appears contradictory. . . . the statement that "The wastewater discharge from EMTP may be causing the groundwater in the vicinity of the disposal areas to exceed the Basin Plan water quality objectives." is not supported by the facts. In addition, Finding 18 states that wastewater may be causing exceedances in drinking water standards. . . . We recommend that Finding 18 be corrected to reflect data contained in the RWD or deleted in its entirety. The statement "municipal and domestic supply beneficial uses of the groundwater in the eastern portion of EMTP are likely to be attainable outside of the immediate vicinity of the disposal areas" is perplexing.</p>	<p>The Regional Board maintains that the information stated in WDRs Finding 18 is accurate and appropriate. The apparent confusion, contradiction and perplexity noted by the commenter resulting from Finding 18 stems from misinterpretation of the Basin Plan groundwater water quality objective for nitrates and failure to recognize that nitrogen compounds in all forms must be included in the analysis to determine the potential to impact nitrate levels in the groundwater.</p>
14	<p>(EMCA report, p 24, lines 7-13)</p> <p>Finding 18 appears to correctly state that there are no users of groundwater in the Morro Canyon watershed and there is no evidence to support a future intention to use groundwater in the Morro Canyon for the potable purposes. This issue highlights a more serious concern of the application of municipal and domestic supply beneficial uses to water that has no past history, present use, or future intent as a source of water for municipal or agricultural usage, and which might not be present.</p>	<p>The current beneficial use designations for the San Joaquin Hills HSA groundwater were applied in the development of the WDRs. Unless the Basin Plan designations are amended, the Regional Board must enforce the current beneficial uses.</p>

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15	<p>(EMCA report, p24, lines 14-23)</p> <p>WDR Finding 22 states that the SDRWQCB considered the assimilative capacity of the soil and groundwater to develop effluent limitations. This statement contradicts CDO Finding 2 that the level of total nitrogen contained in the septic tank effluent would exceed total nitrogen limitations of the WDR, implying that the wastewater effluent, not effluent from the disposal fields that has undergone physical, chemical, and biological conversion and degradation, is causing water quality exceedances. If the assimilative capacity of the soil and groundwater were considered, evidence to support this statement should be provided. In addition, information that supports the denitrification activities of the soil and groundwater for its ability to remove / nitrate should be examined. Otherwise, Finding 22 should be deleted.</p>	<p>The Regional Board did consider the assimilative capacity of the soil and groundwater in developing the effluent limitations. Note 3 of the spreadsheet used to calculate effluent limitations states that the effluent calculations include an assumption that 30% denitrification occurs as the effluent percolates through the soil. This denitrification rate is at the upper range of typical denitrification rates in the unsaturated subsurface. Consideration of denitrification is part of the reason that the calculated maximum daily total nitrogen effluent limitation is 7.0 mg/L as N while the groundwater water quality objective is 2.3 mg/L as N. A print out of the spreadsheet is included in the file reviewed by the commenter and was discussed in the commenter's report.</p> <p>The Regional Board also considered whether the groundwater upgradient of the disposal fields had assimilative capacity. Based on sample results of the groundwater in the upgradient monitoring well P3 contained in the RWD, Regional Board concluded that no assimilative capacity is available at least during the dry season. Thus, effluent discharged must satisfy groundwater objectives at the point when the effluent reaches the water table.</p>

Comment #	Comment	Staff Response
16	<p>(EMCA report, p 25, lines 1-16)</p> <p>WDR Finding 23 states that other waste discharges were considered when establishing the requirements of the EMTP WDR. It would be instructive to the reviewers of the EMTP WDR to receive copies of other waste discharge requirements that require effluent limits to meet Basin Plan water quality objectives for groundwater, particularly for mineral constituents. Our knowledge of discharge requirements set in other WDRs for onsite systems treating domestic wastewater suggest that discharge limits are typically set For conventional wastewater parameters such as flow, biochemical oxygen demand (BOD), total suspended solids (TSS), pH, temperature, dissolved oxygen (DO), bacteria, and possibly nitrates. WDR Finding 23 should be supported by appropriate technical references or deleted.</p>	<p>Finding 23 states that the Regional Board considered other waste discharges, in addition to several other factors, in establishing the requirements of the WDRs. "Other waste discharges" refer to actual discharges that may be occurring near the discharge being considered for the WDRs, which may have a bearing on how much additional discharge to the receiving waters could be allowed. To this end, the Regional Board considered the existence of campsite pit toilets upgradient of the EMTP disposal areas and considered the contribution of wildlife to bacteria levels observed in Moro Canyon Creek.</p> <p>There are numerous examples of WDRs which require discharge specifications to ensure compliance with Basin Plan groundwater water quality objectives, including limitations on mineral constituents. Copies of these WDRs may be obtained upon request from the Regional Board. Effluent limitations for the conventional parameters identified in the comment, with the exception of flow and nitrates, are usually reserved for direct discharges to surface waters.</p>

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17	<p>(EMCA report, p 25, lines 17-23 and p 26, lines 1-6)</p> <p>An evaluation of the nitrogen or nitrate concentrations in the wastewater prior to disposal was not performed to substantiate the claim that wastewater from the EMTP septic tank presents a potential to cause exceedances of water quality objectives for ground and surface water. In fact, data from the Psomas 2002 report shows that groundwater found in and near the wastewater disposal areas is not contaminated with nitrate. Both the CDO and WDR make continual reference to the total nitrogen content of the wastewater, as opposed to the nitrate concentration (which would be in accordance with both CCR Title 22 and the Basin Plan). Insufficient evidence was presented by the CDPR as to the evidence of groundwater in the El Morro Canyon. Insufficient data was supplied to support that other WDRs were considered when establishing the requirements that EMTP wastewater meet groundwater standards. Information was not presented to establish past, present, future beneficial uses of groundwater (if present) in El Morro Canyon.</p>	<p>The Regional Board does not agree with the comment. The individual points in the comment are addressed in other responses to comments above.</p>

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18	<p>(EMCA report, p 27, lines 11-18)</p> <p>The average dry weather daily flow is reported in the Findings (page 3) as 42,570 gpd for the East EMTP. The average daily wet weather flow is identified as 51,084 gpd. In the Prohibitions (Prohibition 8, page 7), the discharge is prohibited to exceed 42,600 gpd in dry weather and 51,000 gpd in wet weather. A conventional prohibition or flow discharge limit would specify monthly average flows, recognizing the variability and inevitability of peak flows exceeding the averages. The limits set for the monthly averages should be set at least as high as the current averages for both dry and wet flows. Prohibitions for flows from the West EMTP should also conform to this approach.</p>	<p>The Regional Board agrees with the comment. An errata sheet to tentative Order No.R9-2003-0228 will revise the flow limitations for both the eastern and western portions of EMTP as calendar month averages of the daily flowrate to accurately reflect the bases for the limitations.</p>
19	<p>(EMCA report, p 28, lines 8-13)</p> <p>Methodology for setting limits. Regarding the numerical discharge limits, calculations used by SDRWQCB to develop the limits (Vasquez, August 4, 8, and 12, 2003) apply a risk-based approach for acute and chronic risk. A risk-based approach is appropriate when treated effluent is directly discharged to surface waters, causing a potential risk of exposure (e.g., to aquatic life). In this case, the discharge is to the subsurface, having no direct risk of exposure and where attenuation of constituent concentrations occurs from natural subsurface processes.</p>	<p>The methodology used to derive the effluent limitations borrow the statistical procedures of the so-called risk-based approach. Borrowed terminology from the risk-based approach and used in the documentation of the discharge specification calculations for EMTP (Vasquez August 4 and 8, 2003) may have led the commenter to believe the risk-based approach was applied for the EMTP discharge. However, the statistical procedures by themselves can be found in general statistics textbooks and are valid when used appropriately.</p> <p>The statistical procedures provide a highly appropriate manner to enforce the groundwater water quality objectives in the Basin Plan which are given as "concentrations not to be exceeded more than 10 percent of the time in any one year period." The statistical procedures also provide a means of establishing a technically justifiable monitoring frequency appropriate to the effluent limitation.</p>

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20	<p>(EMCA report, p 28, lines 14-19)</p> <p>Further, "[i]n the absence of actual effluent analysis data, Waste Load Allocations (WLA) were set equal to the ground water quality objectives." Except for BOD and TSS, effluent water quality data were not found by the authors despite a review of all available records. The setting of discharge limits for unconventional constituents without a reasonable basis for their presence in the effluent is perplexing, as are the lack of effluent quality data, and the substitution of ground water quality objectives for effluent data.</p>	<p>Discharge specifications ("Waste Load Allocations") were set equal to ground water quality objectives in the absence of actual effluent analysis data because, as in the case of total dissolved solids, total nitrogen, and iron, data for groundwater upgradient and downgradient of the disposal fields indicate that the groundwater does not have assimilative capacity. Therefore, discharges to the groundwater can only be allowed if the discharge meets groundwater objectives at the time the discharge reaches the water table.</p> <p>Because sampling of the effluent just prior to the water table would be physically difficult, the compliance point for the subsurface discharge is set after the septic tanks but prior to the disposal areas. This compliance point is appropriate because the effluent limitations as presented in the tentative WDRs already take into account denitrification and natural attenuation processes that may occur as the effluent percolates down to the water table.</p> <p>In addition to effluent water quality data for BOD and TSS, total Kjeldahl nitrogen data was also available in the records.</p> <p>It is not unreasonable to assume that wastewater will contain the so called "unconventional constituents" because wastewater in general is known to contain, but is not limited to contain, total dissolved solids, nitrogen compounds, MBAS, boron, chloride, manganese, sulfate and iron.</p>

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21	<p>(EMCA report, p 29, lines 1-13)</p> <p>We note inconsistency in referencing nitrate limits and wish to draw attention to inconsistency within the Basin Plan itself. The nitrate limit in ground water is 45 mg/L nitrate (as N03) as stated in Table 3-4, Maximum Contaminant Levels for Inorganic Chemicals Specified in Table 64431-A of Section 64431 of Title 22 of the California Code of Regulations as Amended January 3, 1995 and repeated in the discussion of nitrate on page 3-10, "the primary drinking water standard for nitrate as N03 is 45 mg/L." The limit of 45 mg/L N03 (as N03) is the same chemically as 10 mg/L of N03 (as N). Contradictory to Title 22, Table 3-3, Water Quality Objectives sets a nitrate limit of 10 mg/L N03 (as N03). This concentration would be correct if stated as 10 mg/L N03 (as N). Herein lies a source of confusion and perhaps an inadvertent requirement for a more stringent discharge limit than required by law. Setting a more stringent-limit must be based on findings of fact. The reasons why a more stringent limit is set must be provided or the scientifically-correct limit of 45 mg/L N03 (as N03) or 10 mg/L N03 (as N) should be used.</p>	<p>The Regional Board does not agree with the comment. The commenter suggests that the Basin Plan groundwater water quality objective for nitrate in the San Joaquin Hills HSA is an error and must be corrected to be equal to the drinking water standard. The commenter also suggests that nitrate water quality objectives for groundwaters must always be equal to the drinking water standard. However, groundwater nitrate water quality objectives found in the Basin Plan for the different hydrologic units, areas and sub-areas include 5, 10, 15, and 45 mg/L as NO3. Thus, it is apparent that the drinking water standard was not the sole guiding principle when groundwater water quality objectives were established in the Basin Plan.</p> <p>In July 1993, the South Orange County Reclamation Authority (SOCRA) requested that the groundwater water quality objectives for total dissolved solids, nitrate, and boron be relaxed for the San Joaquin Hills HSA in addition to other requests for Basin Plan amendments for other watersheds. Specifically, SOCRA requested that the nitrate objective be relaxed to 45 mg/L as NO3. The Regional Board acted on the requests by adopting Resolution No. 94-25, <i>A Resolution Adopting Amendments to The Comprehensive Water Quality Control Plan for the San Diego Region For The Laguna (1.10), Mission Viejo (1.20), and San Clemente (1.30) Hydrologic Areas</i>. While the Regional Board did approve some of the requested changes in the groundwater objective, the Regional Board rejected the request to relax the nitrate objective for the San Joaquin Hills HSA. Thus, the Regional Board has previously considered and maintained the suitability of the water quality objectives assigned to the El Morro watershed.</p>

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22	<p>(EMCA report, p 29, lines 14-20)</p> <p>Treated effluent that is discharged for final dispersal through disposal fields percolates through the soil and may become mounded at a soil depth determined by subsurface conditions, such as the bedrock underlying the El Morro Canyon. Perched water is influenced by surface activities and conditions such as rainfall, evapotranspiration, irrigation, root uptake, bacterial contamination from natural sources (undomesticated animals), etc. Given the tendency for perched water to be of lesser quality than water found in deep aquifers, perched water is generally not used as a source of municipal or domesticated supply water.</p>	<p>The Basin Plan beneficial uses and water quality objectives for a given basin apply to all groundwaters in that basin. However, if the existence of separate, unconnected aquifers underlying each other is demonstrated, different beneficial uses and water quality objectives may be established for the different aquifers. In the case of the San Joaquin Hills HSA, no information is available demonstrating that the groundwater contained in bedrock is isolated from the overlaying alluvial aquifer.</p>
23	<p>(EMCA report, p 30, lines 1-9)</p> <p>It is difficult to conceive that requiring the EMTP effluent to meet Basin Plan water quality objectives for groundwater is appropriate when perched groundwater in the area of El Morro Canyon, if present at all would probably not meet Basin Plan objectives (Exhibit 10). Of equal concern is the attempt to apply groundwater standards to wastewater, such that if the disposed wastewater were to meet these groundwater standards, the wastewater would be of an acceptable water quality for use as municipal and domestic water supply. It is assumed that the SDRWQCB does not intend to allow treated wastewater to be classified and used as groundwater suitable for potable uses, as this would be in direct conflict to the California Code of Regulations as related to the legal uses of treated wastewater.</p>	<p>WDRs ensure that groundwater beneficial uses and water quality would be protected if a waste discharge will be allowed in a given basin. The actual use of groundwater for potable purposes is, however, regulated by county agencies or the state Department of Health Services.</p>

Comment #	Comment	Staff Response
24	<p>(EMCA report, p 30, lines 16-22)</p> <p>EMTP lies adjacent to the DPR office and a school, both of which are connecting to sewer by means of installing sewage lift stations and a sewer pipeline. By relatively simple changes to the onsite sewer system, EMTP could also connect to the sewer without significant impacts to potential archaeological articles possibly located under ground. It has always been our experience that the submission of an administratively complete Report of Waste Discharge must consider the feasibility of discharging to the existing domestic sewer. Here, this option was never even mentioned, much less evaluated.</p>	<p>The WDRs is being issued for the existing subsurface discharge from EMTP; therefore, whether or not connection to a municipal sewer system was addressed in the RWD is not relevant to the submission of a complete RWD.</p> <p>The CDO requires compliance with all requirements of the WDRs following the time schedule contained in the CDO. The means to comply with the WDR and CDO cannot be specifically prescribed by the Regional Board; however, connection to a municipal sewer system can be a means of compliance.</p>
25	<p>(EMCA report, p 31, lines 1-9)</p> <p>In addition, the West EMTP wastewater treatment system is exempt from both municipal and domestic supply beneficial uses. Neither total nitrogen nor nitrate standards apply to the West wastewater system. Finding 16 of the WDR gives the groundwater quality objectives for the San Joaquin Hills HSA, but includes both the East and West EMTP wastewater systems. In addition, the WDR discharge specifications seem to apply for both the East and West EMTP wastewater systems, and does not distinguish that the West system is exempt from any water quality standards related to nitrate or nitrogen. Discharge requirements need to be changed such that Basin Plan water quality objectives are appropriately applied to the West wastewater treatment system.</p>	<p>The western portion of EMTP is located in the portion of the San Joaquin Hills HSA that is exempt from the beneficial use designations for the groundwater but not exempt from the water quality objectives. Therefore, the water quality objectives must also be enforced in the western portion of EMTP.</p>

Comment #	Comment	Staff Response
26	<p>(EMCA report, p. 31, lines 10-19)</p> <p>The Effluent Monitoring Program requires quarterly analysis for BOD and TSS. Numeric criteria for BOD and TSS were not established in the discharge requirements nor are they established as water quality objectives for groundwater in the San Joaquin Hills HSA. The Groundwater Monitoring Program requires that groundwater from supposed reference monitoring wells P11, P12, and P13 be analyzed on a quarterly basis for total coliform, fecal coliform, and enterococcus. The WDR discharge specifications do not give a daily maximum or 12-month average limit for bacteria and numeric criteria are not provided in the Basin Plan as water quality objectives for groundwater. It is not clear how the results for these analyses will be used if WDR discharge specifications and water quality objectives for these parameters (for groundwater) are not established.</p>	<p>Nothing precludes the Regional Board from requiring monitoring for constituents for which effluent limitations have not been established. California Water Code Section 13267, under which Monitoring and Reporting Programs for WDRs are issued, authorize the Regional Board to require such monitoring in order to investigate the quality of waters of the state.</p> <p>Monitoring for BOD, TSS, and bacterial indicators will provide information on treatment efficiency, potential for assimilation of waste discharged, extent of natural attenuation, and proper disposal facility operation and maintenance.</p>

Comment #	Comment	Staff Response
27	<p>(EMCA report, p 33, lines 9-15)</p> <p>El Morro Creek discharges to the Pacific Ocean within the southern portion of the Irvine Coast Marine Life Refuge Area of Specific Biological Significance. Removal of water from El Morro Creek potentially impacts the established wetland; thus, there should be a thorough study made of the potential environmental impacts that would occur because of WDR Prohibition 7. Neither the Psomas reports nor the SDRWQCB provide information on the existing habitat in the area of El Morro Creek or have discussed the water resources-related environmental factors associated with the proposed discharge requirements. Additionally, Prohibition 3 will require an upgrade with potential impacts from construction of flood control measures. However, WDR Finding 24 concludes that the project is exempt from CEQA. Before Tentative Order No. R9-2003-0228 is adopted, sufficient evidence should be provided to demonstrate that the results of the prohibitions contained in the WDR do not cause significant environmental impact warranting mitigation. Alternatively, WDR Finding 24 should be revised.</p>	<p>The perennial flow in Moro Canyon Creek would not be considered a violation of Prohibition 7 of WDRs Order No. R9-2003-0228 because available data does not establish that the creek flow is recognizable as wastewater.</p> <p>The state Department of Fish and Game and the US Fish and Wildlife Service were identified by the Regional Board as parties that may have an interest in and may wish to comment on the environmental impacts to Moro Canyon Creek and surrounding areas that may result from the adoption of WDRs Order No. R9-2003-0228 and CDO No. R9-2003-0235. Copies of the tentative orders were sent to these agencies, as well as other interested parties, at the same time the tentative orders were sent to Dept. of Parks and Recreation. To date no comments regarding the tentative Orders have been received from either of these two agencies.</p> <p>The EMTP wastewater treatment and disposal systems are existing sewerage facilities for which the operation, repair, maintenance, permitting, leasing, licensing or minor alteration of structures, facilities, mechanical equipment, or topographical features are exempt from CEQA under California Code of Regulations Title 14 Section 15301.</p>

Comment #	Comment	Staff Response
<i>Comments received from the California Department of Parks and Recreation contained in letter dated October 29, 2003</i>		
28	Please provide specific dates for when State Parks will be required to sample and report on surface waters, groundwater and effluent.	The Regional Board does not specify the dates that effluent, surface water, and groundwater samples must be taken. However, the Regional Board specifies the periods and frequency when such sampling must be conducted (see tables and table footnotes in Sections B, C, and D of the Monitoring and Reporting Program of tentative Order No. R9-2003-0228). The Regional Board also specifies the due dates for submittal of the reports for monitoring conducted in Section H of the tentative order. Monitoring must be conducted for the October-December 2003 quarter if the tentative order is adopted by the Regional Board on November 12, 2003.
29	Waste Discharge Report, Section A (2) establishes what we believe are "boilerplate" prohibitions. However, it is not clear how these may be interpreted in light of the Waste Discharge Report, Cease and Desist Order and the specific prohibitions found within. We believe it is best to eliminate this provision, or at least indicate that nothing in this provision will be deemed to override the specific prohibitions of the WDR and CDO.	WDRs Prohibition A.2 states that "Neither the treatment, storage nor disposal of waste shall create a pollution, contamination or nuisance, as defined by Section 13050 of the California Water Code." A discharge in compliance with the remainder of tentative WDRs Order No. R9-2003-0228 will also be in compliance with Prohibition A.2. The Regional Board, however, recognizes that the existing discharge will not be in compliance with all of the requirements of the tentative WDRs. Therefore, the tentative CDO will be issued to allow DPR to bring the discharge into compliance.

Comment #	Comment	Staff Response
30	Please clarify specifically what Section A(3), Waste Discharge Report prohibits State Parks from doing in light of the specific prohibitions found in the WDR and the CDO	Prohibition A.3 states that “The discharge of treated wastewater shall not cause a violation of the prohibitions contained in the Basin Plan. A copy of the pages from the Basin Plan containing the “Waste Discharge Prohibitions” is attached to this “Response to Comments”. Given the present set of conditions concerning the discharge from EMTP, it appears that all of the Basin Plan prohibitions apply to EMTP with the exception of Prohibitions 4, 15, 16, 17, and 18.
31	Waste Discharge Report, Section A (6-7). Please define "sewage solids" and "disposal site".	<p>For septic tanks, “sewage solids” refer to the material that must be periodically pumped out of the tank for proper maintenance and operation. This typically includes solids that accumulate at the top and bottom of septic tanks and is generally called “septage.”</p> <p>“Disposal site” refers to the two disposal areas in the eastern portion of EMTP and the leach field in the western portion of EMTP.</p> <p>The proper disposal of sewage solids is specified in Section D of the tentative WDRs.</p>
32	Waste Discharge Report, Section C (3). We believe CDO (Flood Protection) should be expanded to include "Runoff Protection".	Provision C.4 (Runoff Protection) of the tentative WDRs requires that “All wastewater storage facilities shall be protected against erosion, overland runoff, and other impacts resulting from a 100-year, 24-hour frequency storm.” The Regional Board understands that there are no wastewater storage facilities at EMTP. Consequently, the Regional Board believes that EMTP is in compliance with Provision C.4.

Comment #	Comment	Staff Response
<i>Comments from Questa Engineering Corporation as transmitted by Wayne Rosenbaum via e-mail on October 28, 2003</i>		
33	<p>As a general observation, the prohibitions and discharge specifications contained in the proposed order are far more stringent in many respects than any requirements I am familiar with for other comparable septic tank-soil absorption systems in California. Many of the requirements appear to be impossible or impractical to comply with. As such they effectively would amount to a prohibition of waste disposal, without the required supporting determination mandated by California Water Code, Chapter 4, Article 5, Sections 13280 and 13281. In order to prohibit the use of subsurface wastewater disposal systems, the Section 13280 of the Water Code requires that such a prohibition be "... supported by substantial evidence in the record that discharge of waste from such disposal systems will result in violation of water quality objectives, will impair present or future beneficial uses of water, will cause pollution, nuisance, or contamination, or will unreasonably degrade the quality of an waters of the state." Having reviewed the proposed WDR and the various water quality data that have been collected, substantial evidence does not exist to support a prohibition of waste discharge from the El Morro Trailer Park. In my experience, establishment of unattainable waste discharge requirements for an existing, long- standing domestic wastewater system such as this would be considered an unreasonable application of the regulatory process. Additionally, as described in my specific comments that follow, there is very little supporting technical justification for most of the numerical limits contained in the proposed order.</p>	<p>The prohibitions and discharge specifications contained in tentative Order No. R9-2003-0228 0228 are based principally on the 1994 Water Quality Control Plan for the San Diego Basin (Basin Plan). Specifically, the requirements enforce the water quality objectives and the municipal and domestic supply beneficial use designations for groundwater in the San Joaquin Hills HSA. The prohibitions simply enforce the Waste Discharge Prohibitions contained in the San Diego Region Basin Plan.</p> <p>The Regional Board does not seek to prohibit the discharge of treated wastewater from EMTP so long as the beneficial uses and water quality of the waters of the state are protected. While the requirements of the tentative WDRs may appear to be stringent and unattainable when applied to a conventional system composed of septic tanks and seepage pits or leach lines, there are alternative on-site wastewater treatment and subsurface disposal technology available which would allow a discharge from EMTP to be in compliance with the tentative WDR. The tentative Cease and Desist Order No. R9-2003-0285 recognizes that alternatives are available which would allow the continuation of a discharge from EMTP.</p> <p>The fact that EMTP has been an existing facility operating for many years without waste discharge requirements does not preclude the Regional Board from issuing requirements that are necessary for the protection of the beneficial uses and water quality of the waters of the state.</p>

Comment #	Comment	Staff Response
34	<p>Finding #15 indicates that the Basin Plan designates the groundwater in the project area (San Joaquin Hills Hydrologic Sub-Area), on the east side of Pacific Coast Highway (PCH) to be suitable for municipal and domestic water supply uses; but that this designation does not apply on the west side of the highway. According to the water quality data supplied to the Regional Board by PSOMAS (2002), the background water quality data for the area indicates a naturally occurring level of total dissolved solids (TDS) in excess of 3,000 mg/L on the east side as well as the west side of PCH. This is apparent from the surface water sampling results at upstream control stations EB-1 and EB-2, which show TDS concentrations ranging from 1,900 to 5,800 mg/L. The sampling results at these control stations are largely a reflection of groundwater return flow. The high TDS concentrations are attributable to the geochemistry of the marine sediments which comprise the geology of the area. There are no groundwater supply wells in the area.</p> <p>According to the State Sources of Drinking Water Policy, Resolution No. 88-63 (see Basin Plan page 5-7), ground waters are excepted from being considered suitable for domestic or municipal- supply where the total dissolved solids exceeds 3,000 mg/L and it is not reasonably expected to supply a public water system. Resolution No. 88-63 also excepts ground waters that do not provide sufficient water for extraction of 200 gallons per day. Based on the site-specific data collected in the PSOMAS water quality investigation, the designation of the local groundwater as potential source of municipal or domestic water supply does not appear warranted. Because of the lack of any groundwater uses in the area, this information on groundwater quality conditions would not have been known in the past at the time the Regional Board adopted</p>	<p>The information available in the Report of Waste Discharge (RWD) indicated that 10 out of 16 groundwater samples taken in the vicinity of the disposal fields in the eastern portion of EMTP had total dissolved solids concentrations below 3,000 mg/L. Furthermore, two of four surface water samples taken at stations EB1 and EB2, which the commenter correctly recognized as indicative of the presence and quality of groundwater upgradient of the disposal fields, had TDS concentrations below 3,000 mg/L. Therefore, the data is far from conclusive that the groundwater contains high TDS everywhere in the El Morro watershed.</p> <p>The Regional Board does not have information to demonstrate that the groundwaters in the El Morro watershed is not capable of providing at least 200 gallons per day. However, the RWD indicated a groundwater underflow of 0.8 gallons per day which translates to over 1000 gallons per day of possibly extractable water.</p> <p>As indicated in WDRs Finding No. 15, the El Morro watershed is a sub-basin of the San Joaquin Hills Hydrologic Sub-Area. In July 1993, the South Orange County Reclamation Authority (SOCRA) requested that the municipal and domestic supply beneficial use designation be deleted for the San Joaquin Hills HSA in addition to other requests for Basin Plan amendments for other watersheds. The Regional Board acted on the requests by adopting Resolution No. 94-25, <i>A Resolution Adopting Amendments to The Comprehensive Water Quality Control Plan for the San Diego Region For The Laguna (1.10), Mission Viejo (1.20), and San Clemente (1.30) Hydrologic Areas</i>. While the Regional Board did approve some of the requested changes in the groundwater objective, the</p>

Comment #	Comment	Staff Response
	beneficial use designations for this hydrologic sub-area. It would now be appropriate for the Regional Board to recognize the naturally occurring water quality conditions in the project area that would exclude the groundwater as a viable source of municipal or domestic drinking water in accordance with the provisions of Resolution No. 88-63.	requested changes in the groundwater objective, the Regional Board rejected the request to relax the nitrate objective for the San Joaquin Hills HSA. Thus, the Regional Board has previously considered and maintained the suitability of the beneficial use designation currently assigned to the El Morro watershed.

Comment #	Comment	Staff Response
35	<p>Under Prohibitions A.8 and A.9, the WDR proposes to convert the reported seasonal average wastewater flows to daily maximum flow limitations. It is very likely that this is simply an oversight by the authors of the permit, since it does not conform with basic understanding of sanitary engineering principles. Wastewater flows vary through out the day, from day to day, seasonally and in response to infiltration/inflow effects. State Water Board Order 97-10-DWQ, for example, finds that wastewater flow estimation based on monthly readings is appropriate far septic tank-soil absorption systems covered by the State's General Permit (i.e., flows up to 20,000 gpd). Subsurface wastewater disposal systems which rely upon absorption and dispersion in the soil as part of the treatment process, perform in response to average flow condition (e.g., over several weeks time), not to daily flows. According to the PSOMAS report, the wastewater flows at the El Morro facility are not unusual; they are reported to average less than 190 gpd per connection during the dry season, increasing to about 225 gpd per connection in the wet season. These flow rates are less than the typical design standard for mobile home parks. I could find no technical justification in the proposed order or background information to indicate why the estimated average seasonal flows should be established as the daily maximum limitation.</p>	<p>The Regional Board agrees with the comment. An errata sheet to tentative Order No.R9-2003-0228 will revise the flow limitations for both the eastern and western portions of EMTP as calendar month averages of the daily flowrate to accurately reflect the bases for the limitations.</p>

Comment #	Comment	Staff Response
36	<p>Discharge Specification B.2 requires that average effluent quality from the septic tanks be equal to or better than drinking water quality standards for several constituents, including total dissolved solids, total nitrogen, MBAS, chloride, manganese, sulfate and iron. The order also specifies the daily limit for total nitrogen less than the drinking water standard for nitrate-nitrogen (7.0 vs the standard of 10 mg/L). These effluent limitations are not attainable and are not consistent with stated procedures and considerations used in establishing effluent limitations for wastewater discharges to land, as noted below.</p>	<p>The purpose of the Discharge Specifications under Section B.2 of the tentative WDRs is to enforce the beneficial use designations and water quality objectives for the groundwaters in the San Joaquin Hills HSA in order to ensure that the beneficial uses and water quality of the waters of the state are protected. While the requirements of the tentative WDRs may appear to be stringent and unattainable when applied to a conventional system composed of septic tanks and seepage pits or leach lines, there are alternative on-site wastewater treatment and subsurface disposal technology available which would allow a discharge from EMTP to be in compliance with the tentative WDRs. The tentative Cease and Desist Order No. R9-2003-0285 recognizes that alternatives are available which would allow the continuation of a discharge from EMTP that is in compliance with the discharge specifications.</p>
37	<p>Septic tanks are primary wastewater treatment systems and have no capability to produce effluent quality based on drinking water standards. Compliance with any of these limitations would be purely happenstance. The proposed establishment of these limits conflicts directly with the Basin Plan, on page 422 and 423, which states that waste discharge requirements for domestic wastewater discharges to land contain effluent limitations based on, among other things, "The treatment capability of the treatment process employed by the dischargers". In septic tank soil absorption systems, the septic tank is only an intermediate stage in the treatment process. The soil environments plays a critical role in providing for physical, chemical and biological renovation of the percolating wastewater effluent. The establishment of effluent</p>	<p>The effluent limitations under Section B.2 of the tentative WDRs are meant to enforce the water quality objectives for the groundwaters in the San Joaquin Hills HSA which are more stringent than the drinking water standards. The effluent limitations do consider the treatment capability of the soil absorption system, and specifically, the total nitrogen effluent limitation accounts for denitrification in the soil once the effluent is discharged from the disposal system.</p> <p>The Regional Board may issue site-specific waste discharge requirements if the general permit will not adequately protect the groundwater quality. The Regional Board maintains that it is appropriate to issue individual waste discharge requirements with discharge</p>

Comment #	Comment	Staff Response
	wastewater effluent. The establishment of effluent requirements at a mid-point in the overall treatment process ignores the basic principles of operation of this type of system. For example, State Water Board Order 97-10-DWQ recognizes this and does not specify effluent quality requirements for septic tanks for systems covered by the General Permit.	specifications for EMTP in order to protect the waters of the State.
38	The Basin Plan also states on pages 422 and 423 that effluent limitations for land based discharges of domestic wastewater be based on the assimilative capacity of the receiving water. The proposed limits appear to simply apply the receiving water (groundwater objectives) directly to the septic tank effluent without consideration of the assimilative capacity of either the soil or the receiving water. The detailed water quality investigation conducted by PSOMAS at the request of the Regional Water Board provided substantial evidence of the assimilative capacity of the receiving environment in the area of the El Morro Trailer Park wastewater disposal fields.	Waste load allocations were set equal to ground water quality objectives because, as in the case of total dissolved solids, total nitrogen, and iron, data for groundwater upgradient and downgradient of the disposal fields indicate that the groundwater does not have assimilative capacity. Therefore, discharges to the groundwater can only be allowed in the case of EMTP if the discharge meets groundwater objectives at the time the discharge reaches the water table.
39	<p>An example of how the assimilative capacity is commonly incorporated into requirements for subsurface wastewater disposal systems is to establish a permissible tolerance or change in water quality between upgradient/upstream and downgradient/downstream reference points. Another example from the North Coast Regional Water Board' Basin Plan states the following with respect to nitrate limitations:</p> <p>"On-site systems shall not cause the groundwater nitrate concentration to exceed 10.0 mg/L as N at any source of drinking water on the property nor at any off-site potential drinking water source."</p> <p>Similar language to the above has been proposed for adoption in the State regulations under AB 885.</p>	Comment noted.

Comment #	Comment	Staff Response
40	<p>Consideration of past, present and probable future beneficial uses is required under the Water Code, and listed in WDR Finding #23. The septic tank effluent limitations are apparently based on the assumption that groundwater in the area is suitable for municipal or domestic water supply based on beneficial use designations in the Basin Plan for the hydrologic sub-area. However, based on the findings of the water quality investigation by PSOMAS, it is clear that the groundwater is not suitable for these beneficial uses. It is appropriate for the proposed WDR to recognize and state that "past, present or probable future beneficial uses" do not include municipal or domestic water supply in any area that could potentially be impacted by the discharge. This would that form the basis for revising the discharge specifications to provide a more realistic relationship to the receiving environment. The Basin Plan provides (see page 2-2 and 2-3) that beneficial use designation may be removed as a result of naturally occurring pollutant concentrations that prevent attainment of the use, which applies in this instance.</p>	<p>The current beneficial use designations established in the Basin Plan for the San Joaquin Hills HSA groundwater are fully implemented in the tentative WDRs. Unless the Basin Plan designations are amended, the Regional Board must protect the current designated beneficial uses.</p> <p>As indicated in WDRs Finding No. 15, the El Morro watershed is a sub-basin of the San Joaquin Hills Hydrologic Sub-Area. In July 1993, the South Orange County Reclamation Authority (SOCRA) requested that the municipal and domestic supply beneficial use designation be deleted for the San Joaquin Hills HSA in addition to other requests for Basin Plan amendments for other watersheds. The Regional Board acted on the requests by adopting Resolution No. 94-25, <i>A Resolution Adopting Amendments to The Comprehensive Water Quality Control Plan for the San Diego Region For The Laguna (1.10), Mission Viejo (1.20), and San Clemente (1.30) Hydrologic Areas</i>. While the Regional Board did approve some of the requested changes in the groundwater objective, the Regional Board rejected the request to relax the nitrate objective for the San Joaquin Hills HSA. Thus, the Regional Board has previously considered and maintained the suitability of the beneficial use designation currently assigned to the El Morro watershed.</p>
41	<p>The Water Code and WDR Finding #23 also require that "all factors that affect water quality in the area" be considered in setting waste discharge requirements for attainment of water quality objectives. In this case, the water quality investigation by PSOMAS has shown convincing evidence that the geology is the dominant factor affecting mineral quality of the groundwater and surface</p>	<p>The Regional Board agrees that the Report of Waste Discharge provided information indicating that the dissolved solids observed in the groundwater are likely from the sediments in the El Morro watershed.</p> <p>In the case of total dissolved solids, total nitrogen, and iron, for groundwater data upgradient and downgradient</p>

Comment #	Comment	Staff Response
	affecting mineral quality of the groundwater and surface waters of the area, such that the water quality objectives established (based on protection of municipal and domestic water supply uses) are not attainable. The proposed discharge specifications do not properly consider this factor.	of the disposal fields indicate that the groundwater does not have assimilative capacity. Therefore, discharges to the groundwater can only be allowed if the discharge meets groundwater objectives at the time the discharge reaches the water table.
42	In addition to questioning the procedures used to derive the proposed discharge specifications, there doesn't appear to be a sound technical rationale or explanation for any of the specific numeric limits (e.g., average total nitrogen concentration of 3.9 mg/L). Given that the El Morro Trailer Park is an existing facility that has been in operation for more than 40 years it is reasonable and safe to conclude that the water quality conditions and impacts (existing and potential) of the discharge have long since been established. The PSOMAS study included detailed investigation to determine and describe the ambient conditions. Other water quality monitoring work by the County and others adds to what is known. Given these circumstances, it should be relatively straightforward to examine the data, identify any actual impacts, and prescribe requirements to address any identified problem areas. There is no need to hypothesize about cumulative impacts or risks to the environment; since they have been demonstrated through many years of continuous operation, and they should be observable from the monitoring results.	<p>As stated in responses to previous comments, discharges to the groundwater can only be allowed if the discharge meets groundwater objectives at the time the discharge reaches the groundwater table because of the lack of assimilative capacity. The discharge specifications in the Discharge Specification Section B.2 of the tentative WDRs were derived to enforce the Basin Plan water quality objectives that are given as "concentrations not to be exceeded more than 10 percent of the time in any one year period." The statistical procedures also provide a means of establishing a technically justifiable monitoring frequency appropriate to the discharge specifications.</p> <p>The fact that EMTP has been an existing facility operating for many years without waste discharge requirements does not preclude the Regional Board from issuing requirements that are necessary for the protection of the beneficial uses and water quality of the waters of the state when the Regional Board determines that such waters are or may be impacted.</p>

Comment #	Comment	Staff Response
43	<p>In my experience as a former regulator and as a current consultant-practitioner in the area of onsite wastewater and water resources management, the proposed WDR for the El Morro Trailer Park has a number of shortcomings related to the application of water quality control policies and technical considerations. The requirements appear to be proposed as a de-facto prohibition of discharge, without full consideration of provisions of the Water Code and Regional Board's own Basin Plan. The proposed requirements are not consistent with the regulation of onsite sewage treatment and disposal systems elsewhere in California, at the State or Regional Board level, and appear to be seriously lacking in technical rationale.</p>	<p>The Regional Board does not seek to prohibit the discharge of treated wastewater from EMTP so long as the beneficial uses and water quality of the waters of the state are protected. While the requirements of the tentative WDRs may appear to be stringent and unattainable when applied to a conventional system composed of septic tanks and seepage pits or leach lines, there are alternative on-site wastewater treatment and subsurface disposal technology available which would allow a discharge from EMTP to be in compliance with the tentative WDRs. The tentative Cease and Desist Order No. R9-2003-0285 recognizes that alternatives are available which would allow the continuation of a discharge from EMTP.</p> <p>The Regional Board may issue site-specific waste discharge requirements to adequately protect groundwater quality. The Regional Board maintains that it is appropriate to issue waste discharge requirements with discharge specifications for EMTP in order to protect the waters of the State.</p> <p>The Regional Board maintains that the technical basis for the tentative waste discharge requirements have been sufficiently considered and are appropriate.</p>
<p><i>Comments from Wayne Rosenbaum contained in letter dated November 5, 2003</i></p>		
44	<p>Alternatively, if the Regional Board were to order the Department of Parks and Recreation to hook up El Morro Village to the existing sanitary sewer, the residents of El Morro Village would agree to pay for all reasonable costs related thereto.</p>	<p>As mentioned above, the means to comply with the WDRs and CDO cannot be specifically prescribed by the Regional Board. The decision to connect to a sanitary sewer system must be made by the discharger, in this case the DPR, after obtaining authorization from the local sewerage agency responsible for the connection to the sanitary system.</p>

Comment #	Comment	Staff Response
		<p>The tentative CDO would allow DPR a reasonable time to evaluate and select an alternative by which the discharge could achieve compliance with WDRs. The selected alternative may be connection to an existing sanitary sewer system.</p>
45	<p>Item 1.(a) – The draft CDO prepared by the Regional Board Staff does not conclude that the systems are failing.</p> <p>...Therefore, unlike the Crystal Cove Cottages case, there is no Water Quality basis for the CDO.</p>	<p>The findings of the CDO layout the basis for the enforcement action, which is the inability of the existing discharge to comply with certain requirements of the tentative WDRs. The WDRs are designed to ensure protection of ground and surface waters of the state in the vicinity of the discharge. The findings of the CDO, therefore, are valid and the Regional Board does not recommend any changes to the proposed CDO at this time.</p>
46	<p>Item 2. (4th Paragraph) – Factors that the Regional Board must consider when adopting waste discharge requirements.</p>	<p>The Regional Board provided copies of the tentative orders to all known interested parties by letter dated October 3, 2003. All written comments on the tentative orders were received by 5:00pm on November 5, 2003. Regional Board staff reviewed and responded to all written comments and provided copies to all interested parties and to the Regional Board. Any additional comments will be heard orally at the November 12, 2003 hearing. Therefore, all issues will have been considered at the time the Regional Board takes action on the matter and, thus, all factors will be considered. This Finding is consistent with all WDRs adopted by the Regional Board.</p>

Comment #	Comment	Staff Response
47	Item 2. (5th Paragraph) – The Order claims to be exempt from CEQA because this is simply the permitting of an existing system. This flies in the face of reality because the system can not achieve the discharge standards of the WDR. Thus, the order is subject to a CEQA analysis prior to approval by the board.	The Regional Board disagrees with this comment. Finding No. 24 of the tentative WDRs states that the requirements of CEQA have been satisfied as existing facilities, and, thus, the Regional Board may take the proposed action of adopting the WDRs. No changes are recommended.
48	Item 2. (6th Paragraph) – San Diego Policy requires that hookup to a sanitary sewer be shown to be infeasible BEFORE issuing a WDR for a community septic system.	<p>The Regional Board disagrees with this comment. No such “San Diego Policy” currently exists. The Basin Plan does include guidelines for new community or individual sewerage facilities that are based on the assumption that it is desirable that city and county governments:</p> <p>“Prohibit the use of new community and individual sewerage systems where existing community sewerage systems are reasonably available. The determination of whether or not existing systems are reasonably available should be the responsibility of the local agency or agencies having jurisdiction over the project.”</p> <p>As previously mentioned, the decision in this case rests with the DPR, the agency having jurisdiction over the project.</p>
49	Items 1.(b), 1.(c), 1.(d), 1.(e), Item 2. 1st, 2nd, and 3rd Paragraphs, and Item 3. 1st and 2nd Paragraphs	Responses to these comments are already covered above. No additional responses are necessary.
<i>Comments from Surfrider Foundation contained in letter dated October 31, 2003</i>		
50	The Laguna Beach Chapter of Surfrider Foundation supports the adoption of Tentative Order Nos. R9-2003-	Comments noted

Comment #	Comment	Staff Response
	<p>0228 and R9-2003-285, which will serve to stop further illegal discharges of wastewater to the groundwater and surface water from the residents of El Morro Trailer Park at Crystal Cove State Park.</p> <p>As you are aware . . .</p> <p>Our understanding . . .</p> <p>We support the Tentative Orders proposed by the San Diego Regional Water Quality Control Board and the planned conversion of the trailer park to a state campground. Both actions will improve water quality at Crystal Cove State Park.</p>	